



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/510,905

02/23/2000

John A. Thodiyil

SUN-P3992-JTF

3744

22200

7590

10/06/2004

PARK, VAUGHAN & FLEMING LLP
702 MARSHALL STREET
SUITE 310
REDWOOD CITY, CA 94063

EXAMINER

PHILPOTT, JUSTIN M

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/510,905

Applicant(s)

THODIYIL, JOHN A.

Examiner

Justin M Philpott

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-22 and 24-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-22 and 24-31 is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-10 and 32 is/are rejected.
- 7) ☒ Claim(s) 5-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 11-14, filed June 23, 2004, with respect to the rejection of claims 25-31 been fully considered and are persuasive in view of the amendments to the claims. Therefore, the rejection has been withdrawn.
2. The indicated allowability of claims 1-3 and 8-10 is withdrawn in view of the newly discovered reference to Lyon. Rejections based on the newly cited reference follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 8-10 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,721,273 to Lyon.

Regarding claims 1 and 32, Lyon teaches a method for scheduling data for transmission over a communication link based on priorities assigned to the data, comprising: receiving multiple descriptors at a communication interface device (e.g., thresholds, see col. 24, lines 37-38), each of the descriptors describing a data portion (e.g., data in output queue, e.g., see col. 24, line 38) having an associated priority (e.g., according to bandwidth, see col. 24, line 39); storing

Art Unit: 2665

the descriptors in a plurality of memories (e.g., registers, see col. 24, line 37) on the communication interface device (e.g., traffic flow controller, see col. 24, lines 2-28), wherein each of the memories (e.g., registers) is configured to store one or more of the descriptors describing data associated with a predetermined priority (e.g., count level, see col. 24, lines 29-33); maintaining a dynamic weight for each of the plurality of memories (e.g., bandwidth priority, see col. 24, line 39), wherein each dynamic weight corresponds to a threshold amount of data associated with the predetermined priority (e.g., number of cells with respect to threshold, see col. 24, lines 40-63); and servicing the plurality of memories (e.g., registers), wherein each servicing of one of the plurality of memories comprises: (a) receiving a descriptor from the serviced memory (e.g., exceeded threshold, see col. 24, lines 40-43); (b) retrieving data described by the received descriptor, wherein the amount of retrieved data may exceed the threshold amount (e.g., cells, according to exceeded threshold, see col. 24, lines 40-52); (c) scheduling the data for transmission via the communication link (e.g., via schedulers, see col. 25, lines 27-32); (d) determining whether an amount of data scheduled during the servicing for transmission via the communication link exceeds the threshold amount of data corresponding to the dynamic weight for the serviced memory (e.g., see col. 25, lines 39-51 and lines 56-65 regarding exceeded threshold); (e) repeated stages (a) through (d) for a next descriptor in the serviced memory if the amount of data scheduled for transmission during the servicing is less than the threshold amount of data (e.g., see col. 25, lines 1-26, wherein controller inherently determines to continue servicing by selecting next counter); (f) and if the amount of data scheduled for transmission exceeds the threshold amount of data, decreasing the threshold for a

Art Unit: 2665

next servicing of the serviced memory (e.g., see col. 25, lines 13-15, wherein decrementor decreases counter).

Regarding claim 2, Lyon teaches the servicing further comprises: (g) determining if the serviced memory contains a descriptor (e.g., see col. 24, lines 40-52, wherein controller inherently determines if a threshold is provided by the register).

Regarding claim 3, Lyons teaches the servicing further comprises: (g) determining whether a dynamic weight for one of the plurality of memories has changed (e.g., via encoder, see col. 25, lines 16-26).

Regarding claim 8, Lyons teaches transmitting the data scheduled for transmission via the communication link before the entire contents of a packet comprising the scheduled data are scheduled for transmission (e.g., see col. 25, lines 27-32 regarding scheduler transmitting cells of data).

Regarding claim 9, Lyons teaches each of the dynamic weights is dynamically modifiable to adjust the threshold amounts of data (e.g., see col. 24, lines 40-52, wherein the number of cells is dynamically modifiable through discarding).

Regarding claim 10, Lyons teaches the communication interface device is a network interface circuit and the communication link is a network (e.g., see FIGS. 1 and 2).

Allowable Subject Matter

Claims 11-22 and 24-31 are allowed.

Art Unit: 2665

Claims 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on 571.272.3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Justin M Philpott



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600